AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A composite which is obtained by heating and drying a mixture of a carrier in powder form, and a metal hydroxide in powder form or in molten form, wherein

the heating is carried out at a temperature of not less than 80°C to less than 400°C; and

the carrier comprises at least one selected from the group consisting of coal, an infusibilized product or heat-treated product after infusibilization of a synthetic pitch, and active carbon.

Claim 2 (Original): The composite according to Claim 1, wherein the heating proceeds at a temperature of not less than 80°C to less than 200°C.

Claim 3 (Original): The composite according to Claim 1, wherein the heating proceeds at a temperature of not less than 200°C to less than 400°C.

Claim 4 (Original): The composite according to Claim 1, wherein the carrier is a porous material.

Claim 5 (Original): The composite according to Claim 4, wherein the porous material is a heat resistant inorganic substance.

Claim 6 (Original): The composite according to Claim 5, wherein the heat resistant inorganic substance is silica or alumina.

Claims 7-8 (Canceled)

Claim 9 (Original): The composite according to Claim 1, wherein the metal hydroxide is potassium hydroxide or sodium hydroxide.

Claim 10 (Original): The composite according to Claim 1, wherein a mean particle size of the carrier before mixing is 0.1 mm or less, and a mean particle size of the metal hydroxide is 1 mm or less.

Claim 11 (Original): The composite according to Claim 1, wherein the metal hydroxide is mixed in an amount of 1 to 1000 parts by weight per 100 parts by weight of the carrier.

Claim 12 (Original): The composite according to claim 1, wherein no peak derived from metal hydroxide crystals is present in an X-ray diffraction intensity curve of the composite.

Claim 13 (Original): The composite according to Claim 1, wherein no background peak derived from water is present in an X-ray diffraction intensity curve of the composite.

Claim 14 (Original): The composite according to Claim 1, which is a catalyst for an isomerization reaction of an olefin.

Claim 15 (Original): The composite according to Claim 1, which is a catalyst for an oxidation reaction of alcohols.

Claim 16 (Currently Amended): A method for manufacturing a composite, comprising:

mixing a carrier in powder form and a metal hydroxide in powder form and

heating and drying the resulting mixture under a gas flow or under reduced pressure, wherein

the heating is carried out at a temperature of not less than 80°C to less than 400°C; and

the carrier comprises at least one selected from the group consisting of coal, an infusibilized product or heat-treated product after infusibilization of a synthetic pitch, and active carbon.

Claim 17 (Original): The method according to claim 16, wherein the gas is air, an inert gas or a mixture thereof.

Claim 18 (Currently Amended): The method according to Claim 16, wherein the heating proceeds at a temperature of not less than 80°C to less than 200°C.

Claim 19 (Original): The method according to Claim 16, wherein the heating proceeds at a temperature of not less than 200°C to less than 400°C.

Claim 20 (Previously Presented): The composite according to Claim 1, wherein the heating is carried out at a temperature of not less than 80°C to 380°C.

Claim 21 (Previously Presented): The method according to Claim 16, wherein the heating is carried out at a temperature of from not less than 80°C to 380°C.

Claim 22 (Previously Presented): The composite according to Claim 1, wherein heating and drying is carried out in an inert gas flow and wherein the composite does not have a peak for the metal hydroxide in the X-ray diffraction intensity curve.

Claim 23 (Previously Presented): The method according to Claim 16, wherein heating and drying are carried out under an inert gas flow and wherein the composite does not have a peak for the metal hydroxide in the X-ray diffraction intensity curve.

Claim 24 (Previously Presented): The composite according to Claim 22, wherein the inert gas is at least one of nitrogen or argon.

Claim 25 (Previously Presented): The method according to Claim 23, wherein the inert gas is at least one of nitrogen or argon.

Claim 26 (Currently Amended): A method comprising

contacting an olefin with the composite ~~according to~~ of Claim 1 to isomerize the olefin.

Claim 27 (Previously Presented): The method according to Claim 26, wherein contacting includes heating the olefin in the presence of the composite.

Claim 28 (Previously Presented): A method comprising

contacting an alcohol with the composite of Claim 1 to oxidize the alcohol.

Claim 29 (Previously Presented): The method as claimed in Claim 28, wherein contacting includes heating the alcohol in the presence of the composite.

SUPPORT FOR THE AMENDMENTS

This Amendment cancels Claims 7-8; and amends Claims 1, 16, 18 and 26. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claims 1 and 16 is found in canceled Claim 8 and in the specification at least at page 5, lines 5-10. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-6 and 9-29 will be pending in this application. Claims 1 and 16 are independent. Claims 26-29 are withdraw from consideration pursuant to a restriction requirement.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination reconsideration of the application, as amended, in light of the remarks that follow.

Applicants thank the Examiner for the courtesies extended to the representative during the July 29, 2004, personal interview.

As discussed at the personal interview, conventional composites of a carrier and metal hydroxide are obtained using an ***aqueous*** **solution of the metal hydroxide**. Such conventional composites are susceptible to moisture and have low storage stability.

In contrast, the present invention provides a composite with improved storage stability that is obtained by heating and drying a mixture of a carrier in powder form and a **metal hydroxide in *powder* form or in *molten* form**. See, e.g., specification at page 4, lines 22-23.

The attached Second Declaration under 37 C.F.R. § 1.132 demonstrates that in conventional composites, obtained using an aqueous solution of metal hydroxide, the metal from the metal hydroxide tends to migrate to the surface of the composite, where it is particularly susceptible to moisture, while in the composite of the present invention, obtained

by heating a mixture of carrier powder and metal hydroxide powder, the metal in the composite does not migrate to the surface of the composite.

Claims 1-15, 20, 22 and 24 are rejected under 35 U.S.C § 102(b) or, in the alternative, under 35 U.S.C § 103(a) over U.S. Patent No. 6,064,560 ("Hirahara"). In addition, Claims 16-18, 23 and 25 are rejected under 35 U.S.C § 102(b) over Hirahara. Claims 19 and 21 are rejected under 35 U.S.C. § 103(a) over Hirahara.

Hirahara discloses a conventional composite obtained by mixing a carbon aerogel powder with an ***aqueous*** solution of potassium hydroxide. Hirahara at column 4, lines 23-27; Example 6. Hirahara's composite will exhibit the enhanced surface concentration of the metal from the metal hydroxide that is observed in conventional composites.

However, Hirahara's conventional composite obtained using an aqueous solution of metal hydroxide fails to suggest the structural feature of independent Claim 1, implicit from the limitation of "heating and drying a mixture of a carrier in powder form, and a metal hydroxide in powder form or in molten form", of a composite in which the metal from the metal hydroxide has not migrated to the surface of the composite.

Hirahara also fails to suggest the independent Claim 16 limitation of mixing and heating a "**metal hydroxide in *powder* form**".

Because Hirahara fails to suggest all the limitations of the claimed invention, the rejections over Hirahara should be withdrawn.

Claims 1-15, 20, 22 and 24 are rejected under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) over U.S. Patent No. 5,811,611 ("Hamamatsu"). In addition, Claims 16-19, 21, 23 and 25 are rejected under 35 U.S.C. § 102(b) over Hamamatsu.

Hamamatsu discloses a mixture of aluminum hydroxide and potassium hydroxide. Hamamatsu at, e.g., Examples 1 and 13.

However, Hamamatsu fails to suggest the organic carriers of independent Claims 1 and 16 comprising "at least one selected from the group consisting of coal, an infusibilized product or heat-treated product after infusibilization of a synthetic pitch, and active carbon". Thus, the rejection over Hamamatsu should be withdrawn.

Pursuant to M.P.E.P. § 821.04, after independent product Claim 1 is allowed, Applicants respectfully request rejoinder, examination and allowance of withdrawn method Claims 26-29, which include all of the limitations of product Claim 1.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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Attachment:
Second Declaration Under 37 C.F.R. 1.132

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